Naval Operational Medicine Institute

SPAD

Self-Pased Airsickness Desensitization

SPAD Schedule

Day 0:	Check-in Internal Medicine
Day 1:	Biofeedback training (Psychiatry Department) - 2 hrs AM
	Equitest - 30-45 min
	Rotational chair clockwise with no head movements - 1 hr PM
	PT - 1 hr
Day 2:	Biofeedback training (Psychiatry Department) - 2 hrs AM
	Rotational chair clockwise with 2 sequences of head movements - 1 hr PM
	(First 40 min of rotation without head movements, remaining 20 min with two 10 min sequences of head movements)
	PT -1 hr

SPAD Schedule Continued

Day 3:

Biofeedback training (Psychiatry Department) - 2 hrs AM

Rotational chair clockwise with 2 sequences of head movements - 1 hr PM

(First 40 min of rotation without head movements, remaining 20 min with two 10 min sequences of head movements)

Day 4:

PT - 1 hr

Biofeedback training (Psychiatry Department) - 2 hrs AM

Rotational chair clockwise with 4 sequences of head movements - 1 hr PM

(First 20 min of rotation without head movements, remaining 40 min with four 10 min sequences of head movements)

Day 5:

PT -1 hr

Biofeedback training (Psychiatry Department) - 2 hrs AM

Rotational chair clockwise with 4 sequences of head

SPAD Schedule Continued

Day 6:

Rotational chair clockwise with 6 sequences of head movements - 1 hr AM

(Start of complete set of head movements)

Rotational chair counterclockwise with complete set of head movements - 1 hr PM

Day 7:

If unable to rotate due to malaise, Biofeedback session in SPAD room - 1 hr

PT - 1 hr

Rotational chair clockwise with complete set of head movements - 1 hr AM

Day 8:

Rotational chair counterclockwise with complete set of head movements - 1 hr PM

If unable to rotate due to malaise, Biofeedback session in SPAD room - 1 hr

PT - 1 hr

Rotational chair clockwise with complete set of head movements

SPAD Schedule Continued

Day 9:

Rotational chair clockwise with complete set of head movements - 1 hr AM

Rotational chair counterclockwise with complete set of head movements - 1 hr PM

If unable to rotate due to malaise, Biofeedback session in SPAD room - 1 hr

Day 10:

PT - 1 hr

Rotational chair clockwise with complete set of head movements - 1 hr AM

Rotational chair counterclockwise with complete set of head movements - 1 hr PM

Days 11 through completion:

Repeat Days 6 through 10 until successful completion of 20 RPM for 40 minutes

If unable to rotate due to malaise, Biofeedback session in SPAD room - 1 hr

Completion:

Equitest - 30-45 min

PT - 1 hr

Checkout

Rotational Chair

- Provides angular and linear acceleration stimuli
- User selects and controls RPM setting which begins at 4
- Increase RPM as tolerated by 2 to a max of 20
- Sessions consist of six 10 min sequences of head movements
- Sessions last for 1 hour twice daily until completion
- AM spin is clockwise and then PM spin is

Getting In Chair

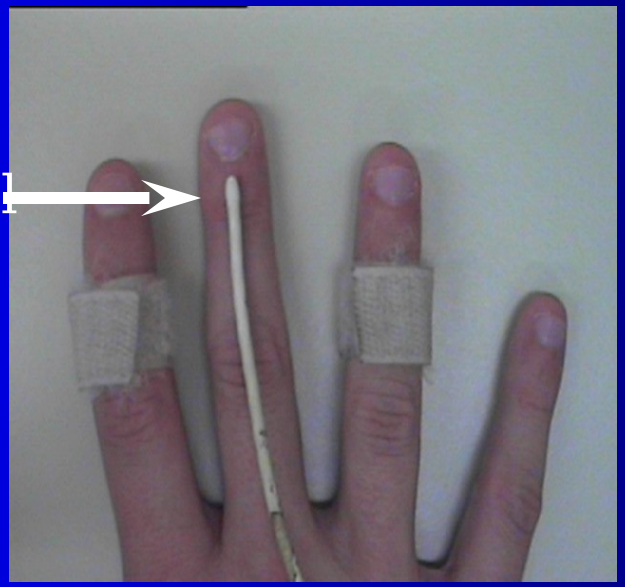
Fasten Seatbelt

Attach monitor Leads

Temperature Probe

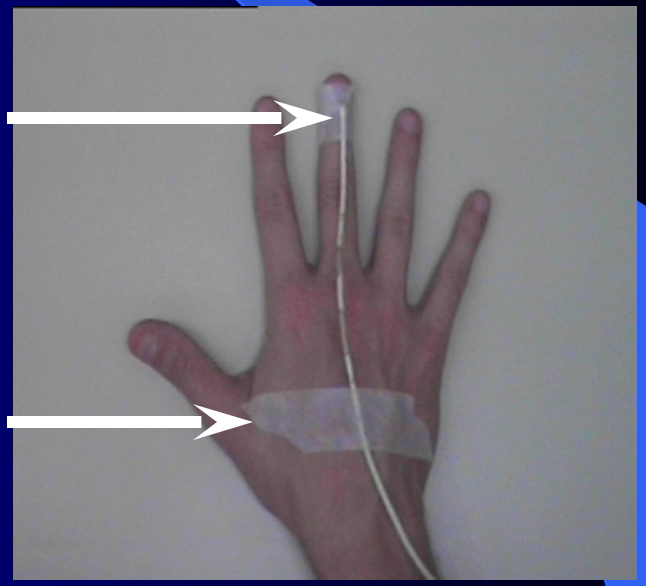
Electrode Position:

1/8 inch from nail bed



Fasten tip with tape

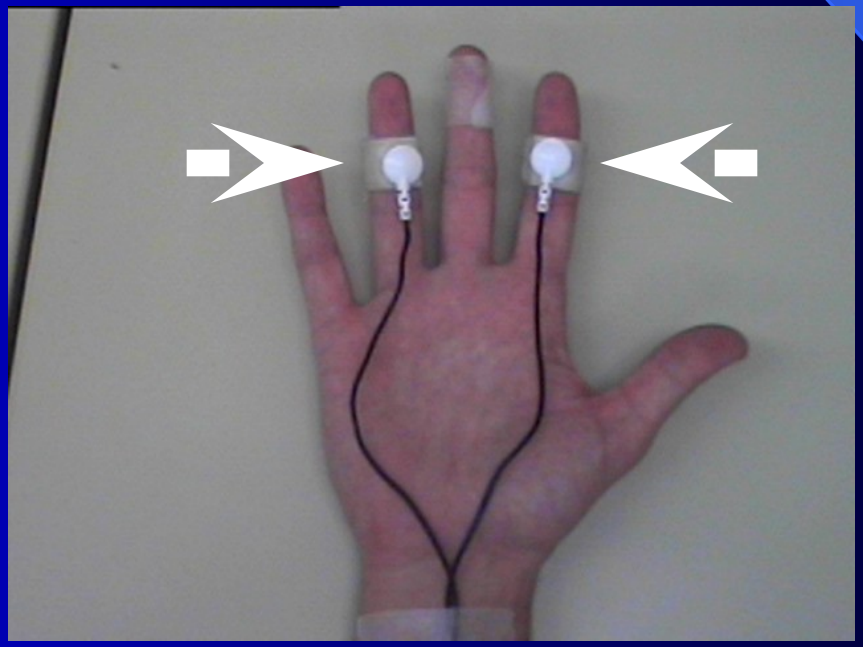
Faste n base of wire



- Place electrode on the dorsum of the right middle finger
- 1/8 inch from the distal
- Fasten electrode tip securely with tape covering tip
- Secure base of wire with

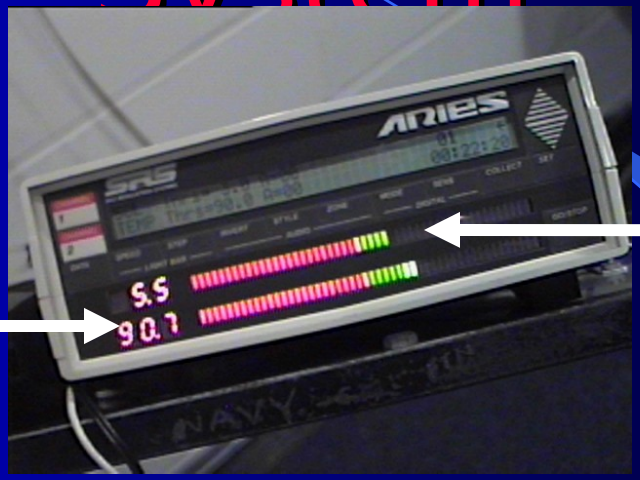
Skin Conductance Level (SCL) Electrode

Electrode



- Fasten two Velcro electrodes to the palmar surface of the index and ring fingers around the second joint space

Aries Self Regulation System



Light Bar Display

Digital Display

- Biofeedback Monitor
- Provides feedback through light bar and digital display during rotational session
- SCL threshold set to 3.0
- Temperature threshold set to 90.0

Rotational Speed

Biofeedback Tape

Head Movement Sequence

Session (1 hour)

six 10 min sequences of head movements

5 min head movements

5 min

5 cycles of movements/ 5 min

1 cycle = head tilts right, left, forward, and back every 10 sec.

Sickness Scale

Subjective measure on a 0 to 4 scale

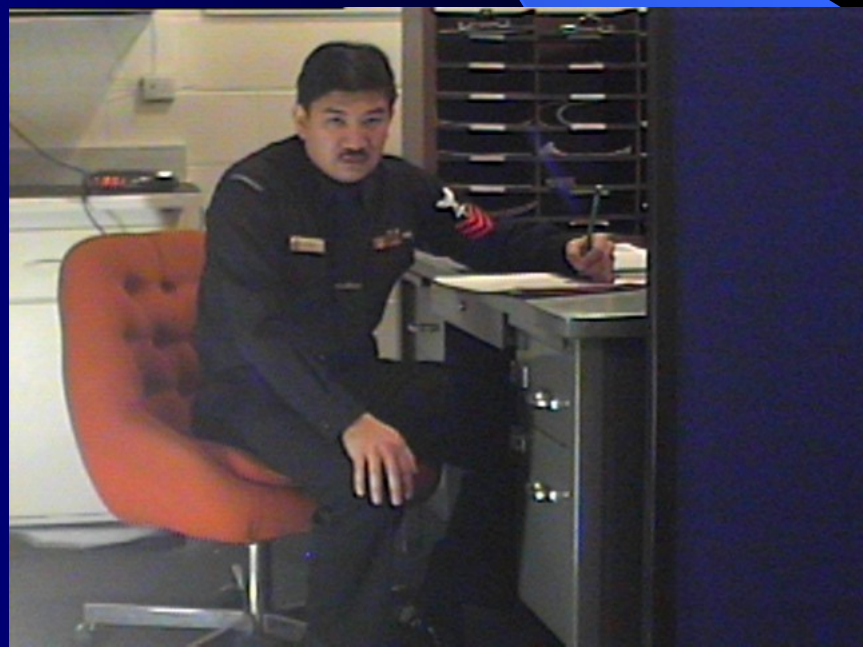
0 No symptoms

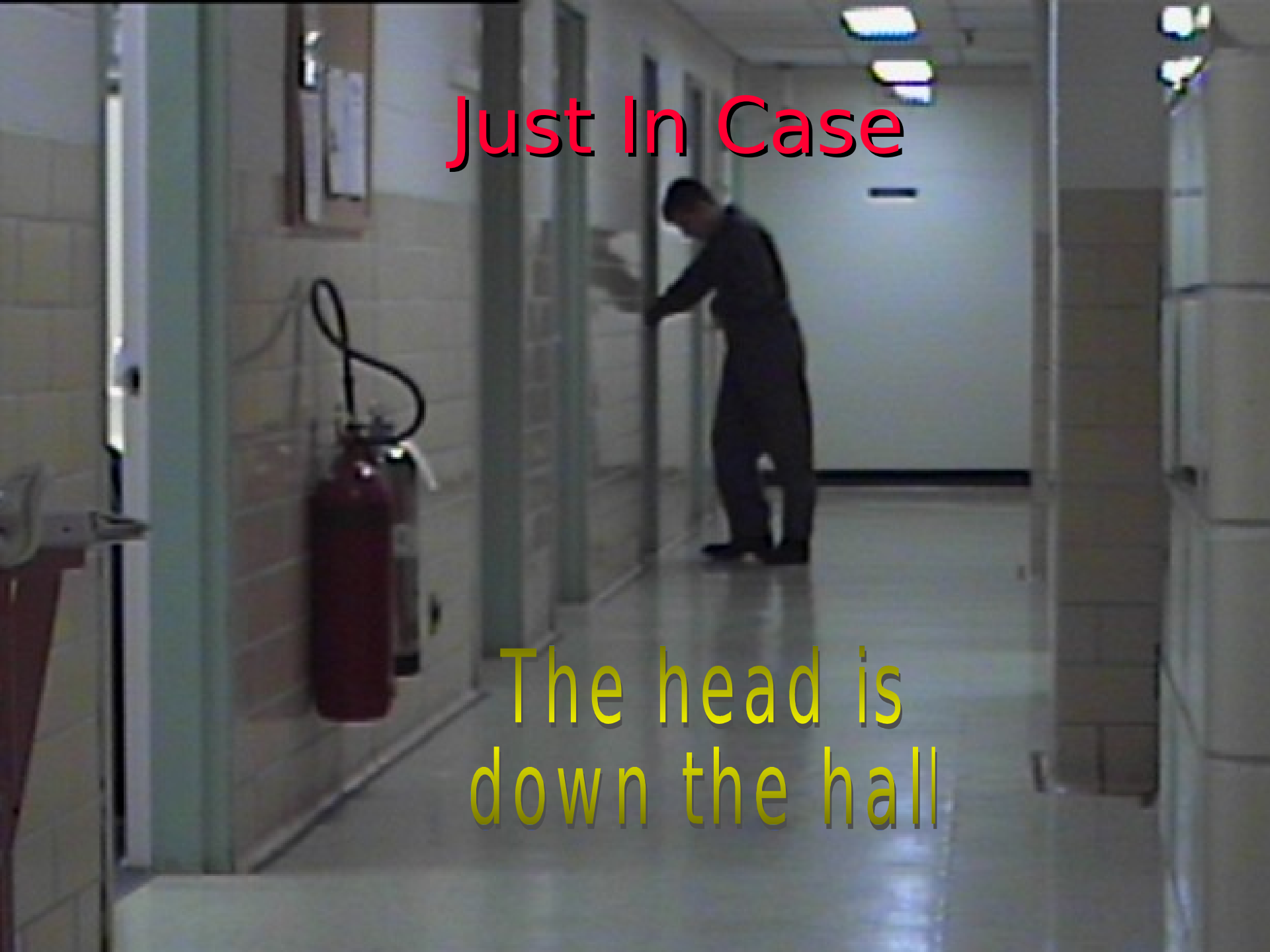
1 “Uneasiness,” fatigue, headache

2 Stomach awareness, mild nausea, hot, sweating

3 Increased nausea, increased salivation, belching

4 Vomiting




Just In Case
The head is
down the hall

Assessment of Progress

Completion of SPAD

Successful completion of the SPAD program requires attaining a spin rate of 20 RPM for 40 minutes with no significant symptoms.